

TRAVANCORE TITANIUM PRODUCTS LIMITED

Kochuveli, Thiruvananthapuram 695 021, Kerala

PH: 0471-2502163,2500814

TENDER NOTICE

CD/CN/MA-21/PHE/2011-12

3rd October, 2011

Tenders are invited in **TWO BID SYSTEM** for the design, manufacture and supply of **PLATE HEAT EXCHANGER** (PHE) for our 300 TPD Sulphuric Acid Plant for cooling the product acid. The new PHE should be interchangeable with the existing PHE

1. Requirements

1	Liquid to be cooled	98.47 % conc. H ₂ SO ₄
2	Cooling medium	Water
3.	Temperature of Inlet H ₂ SO ₄	90 ⁰ C
4	Pressure of inlet H ₂ SO ₄	20 MLC
5	Temperature of Outlet H ₂ SO ₄	56 ⁰ C
6	Quantity of H ₂ SO ₄ to be handled	350 m ³ /hr.
7	Temperature of Inlet water	33 ⁰ C
8	Temperature of PHE outlet water	43 ⁰ C
9	Pressure of water at inlet of PHE	3.8 Kg/cm ²
10	Water flow rate to PHE	500 m ³ /hr.

2. Engineering data of existing PHE

Make	ALFA LAVEL
Model	AM 20 FM (60 Plates)
Plate thickness	0.7 mm
Drawing No.	TTP/SAP/A ₂ – 21
Material of Plate	Hastelloy C-276
Gasket	Viton G
Heat Load	7.92 x 10 ⁶ K Cal/hr.
Diameter of the inlet and outlet pipes (CI) to the PHE	200 mm.
Diameter and No.of bolt holes in the Pipe flange	5/8" – 8 Nos.
Center to center distance of the inlet and Outlet pipe of PHE	
Horizontal	365 mm
Vertical	1450 mm

3. Quotation should be in TWO BID format and in separate sealed covers.

PART A – Technical and Commercial Bid

In a separate sealed cover containing

- EMD - DD drawn in favour of Travancore Titanium Products Limited at Thiruvananthapuram
- Technical details, specifications, material of constructions, operating parameters.
- List of clients to whom similar units were supplied in South India with details..
- Service Centers in South India
- Drawing of general arrangement of PHE showing dimensions and parts.
- Financial capacity and annual turnover for the last FIVE years.

PART B – Price Bid

In a separate sealed cover showing

- Total amount for design, manufacture and supply. Duties and taxes should be shown separately

Separate sealed covers containing PART A and PART B should be enclosed in another sealed cover superscribed with the Tender No. and Last Date and addressed to the undersigned should be submitted before the last date noted.

4. **COMPLETION:**

4 months from the date of Order

5. **INSPECTION :**

Inspection by TTP officials before supply.

6. **DESIGN :**

Design should be conforming to the requirements shown in 1 above and interchangeable with the existing PHE

7. **TEST CERTIFICATION**

Material Test Certificates of all parts should be submitted at the time of Inspection

8. **VALIDITY OF QUOTATION :**

Quotation should be valid for a period of 6 months from the date of submitting the quotation.

9. **GUARANTEE :**

Performance guarantee for 1 year from the date of commissioning.

10. **TERMS OF PAYMENT :**

90% after supply and acceptance.

10% after the guarantee period OR against Bank Guarantee to cover the guarantee period for equal amount.

COST OF TENDER DOCUMENTS	Rs. 5,250+VAT+CESS (Total Rs.5,462)
EARNEST MONEY DEPOSIT	Rs. 35,000 By DD drawn in favour of Travancore Titanium Products Ltd. at Thiruvananthapuram
LAST DATE FOR SUBMISSION OF TENDER	28-10-2011 (up to 02.00 pm.)
OPENING OF TENDERS	PART A : on 28-10-2011 – at 2.30 p.m. PART B ; Pre-qualified bidders will be intimated the date at time of opening the Price Bid

for TRAVANCORE TITANIUM PRODUCTS LIMITED,

CHIEF MANAGER (C & M)